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THE ENGLISH RESIDENTS AT CALCUTTA ESCAPING TO THE SHIPS.

## THE INDIAN NABOB:

OR, A HUNDRED YEARS AGO.

CHAPTER XLVIII.—CAPTURE OF CALCUTTA IN JUNE, 1756.

THE assault on Calcutta lasted three days; but I  
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have no intention of describing the scenes by which it was attended. You may, if you please, read the account at your leisure in the pages of the historian Orme. It is enough to say, that though the defence of the town was for some little while con-

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ducted with bravery, the overwhelming numbers of the enemy rendered success hopeless, until, driven from one point to another, the defenders retired into the Fort.

Happily for the helpless and the innocent—I mean the women and the children—exposed in that devoted Fort to all the horrors of capture by a savage and infuriated foe, there were at that time on the river an English ship and seven smaller vessels belonging to the settlement, besides native boats and boatmen. To the former it was decided to send the European women for refuge; and accordingly, on the evening of the 18th of June, two days after the assault commenced, the boats were put into requisition, and in a short time the embarkation was successfully completed, and the fugitives were placed in comparative safety—a safety which seemed so desirable, that many of the garrison availed themselves of the same means of escape.

The deliverance of the terrified women was not effected sooner than the necessity of the case required; for “at two o’clock in the morning, a general council of war was held, to which all the English, excepting the common soldiers, were admitted; and after debating two hours whether they should immediately escape to the ships, or defer the retreat until the next night, the council broke up without any regular determination: but, as of the two proposals the first was not carried into execution, it was by many believed that the other was adopted.\*

“Meanwhile many of the native boatmen deserted the Fort; and when it was proposed to ship off the native women and children, all order was lost among the affrighted multitude, and the remaining boats were over-crowded. Several were upset, and numbers of the hapless fugitives were drowned, while such as managed to reach the shore, being carried away by the tide from the wharf of the Fort, were either made prisoners or murdered on the spot by the Subahdar’s savage soldiery, who had taken possession of all the houses and inclosures on the bank of the river.

“None of the garrison who had embarked with the English women had returned to the shore; and, their fright being much increased by fire-arrows shot at them by the enemy, they, without orders from the governor, removed the ship from her station before the Fort, to Govindpore, three miles lower down the river; upon which all the other vessels weighed their anchors and followed. In this hour of trepidation, many of the English militia, seeing the vessels departing, were terrified with apprehension at losing their only chance of escape.”

It was then, Archie, that the crowning disgrace of this disastrous day occurred, in the desertion of the man who should have been the last to leave the post assigned to him: I mean the governor of the Factory and Fort. Doubtless, the temptation was strong and his danger imminent; for he, of all others, had reason to dread the vengeance of the young tyrant Surajah, who had threatened that he should be put to death if taken captive, and who was fully capable of any atrocity. And let it be said, in extenuation of the governor, that

“though utterly inexperienced in military affairs,” he had not, up to that moment of terror, manifested any unmanly fear. Early that morning he had visited the ramparts, and when an alarm was given that the enemy were endeavouring to force their way through the palisades into the Fort, he had personally opposed them; and even when told that all the remaining ammunition was damp and unserviceable, he had refrained from spreading the alarm. But when he saw that only two boats remained at the wharf, and that these were being rapidly filled with fugitives, among whom were some of his personal friends, his courage failed, and he also fled.

“The astonishment of those who remained in the Fort was not greater than their indignation at this desertion; and nothing was heard for some time but execrations against the fugitives. However, the concourse soon proceeded to deliberation, when Mr. P——, the chief member of the council, resigned his right to command to Mr. Holwell, whose name I have once or twice before mentioned, as you will remember. The whole number of military now remaining amounted only to a hundred and ninety. I need not pursue this narrative of confusion and misery, Archie. It is enough to say, that no human exertions would have been available to avert the impending stroke. In a few hours the Fort surrendered, and the small handful of our countrymen were in the power of a relentless foe.

#### CHAPTER XLIX.

##### THE BLACK HOLE OF CALCUTTA.

It was at five o’clock in the evening of the 19th of June, that Surajah Dowlah, accompanied by his principal officers, entered the now ruinous Fort. He immediately ordered Omichund, and the ostensible cause of his animosity against the English, namely, the fugitive Kissendass, to be brought before him. He received them with civility; for they were not the objects of his resentment. Having then taken possession of the treasures found in the Fort, and received the congratulations of his attendants on his prowess and good fortune, the young Subahdar sent for Mr. Holwell, whom he vehemently upbraided, but at the same time promised him his protection from personal injury.

And now, Archie, having before me the history of my contemporary, I shall borrow his language in the following narration of the treatment our countrymen received from the victor.

“Mr. Holwell, returning to his unfortunate companions, found them assembled, and surrounded by a strong guard. Several buildings on the north and south sides of the Fort were already in flames, which approached with so thick a smoke on either hand, that the prisoners imagined their enemies had caused this conflagration in order to suffocate them between the two fires. On each side of the eastern gate of the Fort extended a range of chambers adjoining to the curtain, and before the chambers was a verandah, or open gallery; it was of arched masonry, and intended to shelter the soldiers from the sun and rain; but, being low, it almost totally obstructed the chambers behind from the light and air; and while some of the guard were looking in other parts of the Factory for proper places to

\* Mr. Dore again quotes his favourite contemporary, the historian Orme, in the above and following paragraphs.

confine the prisoners during the night, the rest ordered them to assemble in ranks, under the verandah on the right hand of the gateway, where they remained for some time with so little suspicion of their impending fate, that they laughed among themselves at the seeming oddity of this disposition, and amused themselves with conjecturing what they should next be ordered to do. About eight o'clock, those who had been sent to examine the rooms, reported that they had found none fit for the purpose. On which the principal officer commanded the prisoners to go into one of the rooms which stood behind them along the verandah. It was the common dungeon of the garrison, who used to call it *THE BLACK HOLE*. Many of the prisoners, knowing the place, began to expostulate; upon which the officer ordered his men to cut down those who hesitated: on which the prisoners obeyed. But before all were in, the room was so thronged that the last entered with difficulty. The guard then closed and locked the door, confining 146 prisoners in a room not twenty feet square, with only two small windows, and these obstructed by the verandah.

"It was the hottest season of the year, and the night uncommonly sultry even for the season. The excessive pressure of their bodies against one another, and the intolerable heat which prevailed as soon as the door was shut, convinced the prisoners that it was impossible to live through the night in this horrible confinement; and violent attempts were immediately made to force the door, but without effect, for it opened inwards: on which many began to give loose to rage.

"Mr. Holwell, who had placed himself at one of the windows, exhorted them to remain composed, both in body and mind, as the only means of surviving the night; and his remonstrances produced a short interval of quiet, during which he applied to an old jemadar, who bore some marks of humanity in his countenance, promising to give him a thousand rupees in the morning, if he would separate the prisoners into two chambers. The old man went to try, but, returning in a few minutes, said it was impossible; when Mr. Holwell offered him a larger sum, on which he retired once more, and returned with the fatal sentence that no relief could be expected, because the Nabob was asleep, and no one dared to wake him.

"In the meantime, every minute increased their sufferings. The first effect of their confinement was a profuse and continued perspiration, which soon produced intolerable thirst, succeeded by excruciating pains in the breast, with difficulty of breathing, little short of suffocation. Various means were tried to obtain more room and air. Every one stripped off his outer clothes; every hat was put in motion; and, these methods affording no relief, it was proposed that they should all sit down at the same time, and, after remaining a little while in this posture, rise all together. This fatal expedient was thrice repeated before they had been confined an hour: and every time, several, unable to rear themselves up again, fell, and were trampled to death by their companions.

"Attempts were again made to force the door, which, failing as before, redoubled their rage: but the thirst increasing, nothing but 'water!' 'water!' became soon the general cry.

"The kind jemadar immediately ordered some skins of water to be brought to the windows; but, instead of relief, his benevolence became a more dreadful cause of destruction; for the sight of the water threw every one into such excessive agitations and ravings, that, unable to resist this violent impulse of nature, none could wait to be regularly served, but each, with the utmost ferocity, battled against those who were likely to get it before him; and in these conflicts many were either pressed to death by the efforts of others, or suffocated with their own.

"This scene, instead of producing compassion in the guards without, only excited their mirth; and they held up lights to the bars, in order to have the diabolical satisfaction of seeing the deplorable contentions of the sufferers within, who, finding it impossible to get any water while it was thus furiously disputed, at length suffered those who were nearest to the windows to convey it in their hats to those behind them."

This expedient, alas! "proved no relief either to their thirst or other sufferings; for the fever increased every moment with the increasing depravity of the air of the dungeon, which had been so often respired, and was saturated with the hot and deleterious effluvia of putrefying bodies, of which the stench was little less than mortal.

"Before midnight, all who were alive and had not partaken of the air at the windows, were either in a lethargic stupor, or raving with delirium. Every kind of invective and abuse was uttered, in hopes of provoking the guard to put an end to their miseries by firing into the dungeon; and while some were blaspheming their Creator with the frantic execrations of despair, heaven was implored by others with wild and incoherent prayers, until the weaker, exhausted by these agitations, at length laid down quietly and expired on the bodies of their dead or agonizing friends.

"Those who still survived in the inner part of the dungeon, finding that the water had afforded them no relief, made a last effort to obtain air by endeavouring to scramble over the heads of those who stood between them and the windows, where the utmost strength of every one was employed for two hours, either in maintaining his own ground, or in endeavouring to get that of which others were in possession. All regards of compassion and affection were lost, and no one would recede or give way for the relief of another. Faintness sometimes gave short pauses of quiet, but the first motion of any one renewed the struggle through all, under which, ever and anon, some one sunk to rise no more.

"At two o'clock not more than fifty remained alive; but even these were too many to partake of the saving air, the contests for which and life continued until the morning—long implored—began to dawn, and, with the hope of relief, gave the few survivors a view of the dead.

"The survivors then at the windows, finding that their entreaties could not prevail on the guard to open the door, it occurred to Mr. Cooke, the secretary of the Council, that Mr. Holwell, if alive, might have more influence to obtain their relief; and two of the company, undertaking the search, discovered him, having still some signs of

life; but when they brought him towards the window, every one refused to quit his place, excepting Captain Mills, who with rare generosity offered to resign his; on which the rest likewise agreed to make room.

"Mr. Holwell had scarcely begun to recover his senses before an officer, sent by the Nabob, came and inquired if the English chief survived; and soon after the same man returned with an order to open the prison. The dead were so thronged, and so little strength remained, that they were employed near half an hour in removing the bodies which lay against the door, before they could clear a passage to go out, one at a time; when, of one hundred and forty-six who went in, no more than twenty-three came out living—the ghastliest forms that ever were seen alive. But the Nabob's troops beheld them, and the havoc of death from which they had escaped, with indifference, which, however, did not prevent them from removing to a distance; and they were obliged to clear the dungeon, while others dug a ditch on the outside of the Fort, into which all the dead bodies were promiscuously thrown.

"Unable to stand, Mr. Holwell was carried to the Nabob, who was so far from showing any compassion for his condition, or remorse for the death of the other prisoners, that he only talked of the treasures which the English had buried, and, threatening further injuries if he persisted in concealing them, ordered him to be kept a prisoner.

"The officers to whose charge Mr. Holwell was committed thereupon put him in fetters, together with two others of the survivors who were supposed likewise to know something of the treasures. The rest were told they might go where they pleased.

"The dread of remaining longer within the reach of such barbarians, determined them to remove immediately, as far as their strength enabled them, from the Fort, and most tended towards the vessels, which were still in sight; but when they reached Govindpore, they were informed that guards were stationed to prevent any persons from passing to the vessels; on which they took shelter in deserted huts, where some of the natives, who had served the English in different employments, came and administered to their immediate wants.

"Meanwhile, the Nabob's army were employed in plundering Calcutta, where the booty, although sufficient to gratify the common soldiery, produced nothing that answered the expectations which had urged Surajah Dowlah to get possession of the settlement. \* \* \* \* \* The Nabob, irritated by the disappointment of his expectations of immense wealth, ordered Mr. Holwell and the two other prisoners to be sent to Moorshedabad. This order was executed with all the severity that the fear of causing the death of the prisoners would admit. They were put into an open boat, without shelter from the intense sun and heavy rain of the season, fed only with rice and water, and loaded with irons, notwithstanding their bodies were covered with painful boils—a crisis by which all who survived the dungeon recovered from their fever. In their passage up the river, they received some refreshment from the Dutch settlement at Chinchura; and both the French and Dutch at Cossimbazar administered to them all

the offices of humanity which their guard would permit, who, on their arrival at the capital, chose a cow-house for their place of confinement."\*

Having thus given you, Archie, in the words of a trustworthy historian, some account of events in which I had no part, either as actor or witness, but which it was needful for the continuity and right understanding of my own narrative to rehearse, I return to that narrative.

#### CHAPTER L.

##### CALCUTTA UNDER ANOTHER ASPECT.

NEAR the middle of one of the early nights in July, and still accompanied by Maazulla, I re-entered the bounds of Calcutta. Several days before, we had picked up intelligence of the events that had transpired there, but it was too late to alter our course. Besides, I was confident in the disguise which had not hitherto failed me, and, trusting to my guide, I had little hesitation in venturing into the ruined town, especially as we had learned that the victorious Subahdar with his large army had already taken his departure, and left only some few troops to retain possession of his conquest.

Favoured by the gloom of night, we crossed the Mahratta ditch unperceived, though we heard the voices of sentries near us; but we had scarcely escaped this danger, when the clattering of horse and armed horsemen on the hard road warned us that we were in the track of a mounted patrol. An inclosure, or what had been such, by the roadside at that moment presented itself, and the next, we had plunged into a thick shrubbery, safely hidden from prying eyes.

"The Sahib will wait here," whispered Maazulla, and I found myself alone. In a short time, however, he returned. "The watchword for this night is Alinagore,"† he said. "It is well for us to know it, and I crept close to the sentries when the guard halted. We are secure now; let us rest, therefore."

I was not sorry to rest, for I was harassed in body and mind. Our journey for many days had been performed on foot, and through the pathless jungles which then spread immediately behind Calcutta; and since sunset on that day our march had been long and fatiguing. But the exhaustion of physical power was insignificant compared with the struggles of mind I had passed through since the day on which the treachery of Mason and the seeming faithlessness of Zillah had been revealed to me. Archie, I shall not attempt to describe what I suffered; but, happily, the violence of resentment had expended itself, and softer and more human feelings had replaced the first emotions. That Zillah was lost to me, I was certain; but I had done with reproaches, and I had determined, if possible, to save her from the

\* Mr. Holwell survived all these hardships, and returned to England very soon after his release, where he published a well written and affecting narrative of the sufferings of himself and his companions. He also wrote several tracts on Indian affairs. He died at his seat at Pinner, near London, in 1798, in the ninety-ninth year of his age. His biographer adds, that "he was much respected by his acquaintance, and although much afflicted by bodily complaints, possessed a wonderful fund of spirits."

† Alinagore, or The Port of God, was the name Surajah gave to Calcutta after his conquest, in memory of his victory over the English.



misery of such a self-sacrifice as that towards which she was tending. I would defeat, if possible, the design of that "chartered libertine," Mason, to make her his wife; I would at least reveal to Zillah his true character, and denounce him as the successful duellist, the slayer of her own father. To this end I was determined, if possible, to seek out the Irish sergeant, if he yet lived, and obtain a confirmation of his story, and then—

In the midst of these thoughts, as I dreamily passed them through and through my mind, as I lay wrapped in my loose cloak in a thicket of aromatic shrubs, I fell asleep, and the waning moon had already risen before I again opened my eyes.

"The Sahib remembers this spot," said Maazulla, when we had cautiously emerged from our concealment and looked around us.

"It is, and yet surely it cannot be, Omichund's garden," I exclaimed.

It was Omichund's garden, and you will not wonder, Archie, at my surprise when you remember that this inclosure had been the scene of one of the most desperate struggles in the recent attack, and had afterwards formed one of the camping-grounds of Surajah Dowlah's rabble army. All was desolation now: flower-beds were trampled, fruit-trees stripped and broken, shrubberies uprooted, and fountains ruthlessly destroyed. We had little time, however, for sentimental reflections or regrets, for it was necessary to seek some other place of refuge before the people were astir; and we were once more on the road—that same road on which I had first been accosted by Mr. Dalzell after our landing, and on which I had since then so often gaily cantered by Zillah's side.

As we entered Calcutta, the desolations of war were more and more manifest. It was necessary for us to pass the Factory and Fort. They were in ruins, the walls in places being broken down and blackened by the fire, which had destroyed many of the warehouses. The English residences, once so gay, were partially demolished; and that house, in which so many joyous hours had been passed when hope was in the ascendant, especially bore marks of violence. The balcony, over which I had often leaned, was thrown down, the ground beneath was yet strewn with fragments of broken vases, and windows were beaten in.

I groaned aloud, and Maazulla hastened me from the spot. I learned afterwards that this and all the English houses were at that time occupied by the rude soldiery whom the Subahdar had left in charge of Calcutta.

We passed thence into the native town, which seemed entirely deserted. Whole streets were levelled with the ground, and not a footfall, save our own, was to be heard. Presently, however, we approached a group of wretched-looking huts which had been spared, and my guide, uttering an exclamation of thanksgiving and stealthily lifting the latch, entered one of the least dilapidated. After the lapse of a few minutes he reappeared, and beckoned me to enter. I obeyed, and found myself in the presence of a wretched-looking native, who seemed to have just risen from his lair, and whom I recognised as one of the pariahs of the community, who had subsisted by performing the most menial and degrading offices for the

past and gone Sahib log. He gave us shelter, however, and provided us with food; and when I revealed myself to him, he was faithful to his trust. Perhaps a Brahmin would not have been.

All that day I remained in concealment, and slept off some of my bodily fatigue on a bundle of rice-straw, while Maazulla boldly ventured abroad to reconnoitre.

## A GLANCE AT THE INDUSTRIAL POSITION OF ENGLAND.

FIRST PAPER.

THE late Reports on the Paris Universal Exhibition, which were presented to both Houses of Parliament by command of her Majesty, contain many facts of such weight and value, in reference to the position occupied by our own country among the other nations of the world, that we are tempted to summarize such portions of these documents as appear to us most striking and suggestive, for the benefit of our readers. We shall do so in a few very brief papers, trusting that the importance of the information they may contain will prove their own recommendation. The knowledge comprised in the above-mentioned Reports is of a kind which could be obtained by no other means than that of an international exhibition, where the elements of competition and the resources peculiar to each nation were exposed to the general view, so that a fair comparison might be instituted between the competing industries. We may have to wait many years before such an opportunity recurs. In the meanwhile, there is every reason to believe that the impetus imparted to production and progress by the London Exhibition of 1851, and again by that of Paris in 1855, has lost none of its force, but is pursuing its grand march with accumulative vigour and ever-increasing results. Let us see if we can point out the position which our own countrymen occupied in that friendly strife at Paris, and divesting ourselves, if it may be, of all national conceit or prejudice, assume our proper place in the ranks of the working world.

Foremost in importance among all peoples of the globe must stand the arts by which man derives his subsistence from the soil; and for that reason we commence with

### AGRICULTURE.

Up to the year 1851, the opinion had prevailed in France, that in England agriculture was systematically neglected in favour of trade and commerce—an opinion that was probably due to our known large importations of corn. Nothing created more surprise in 1851, than the proofs of the utter falsity of this opinion, which, in the shape of agricultural implements and machines, astonished the foreign visitor in the Palace at Hyde Park. The impression then made as to English agriculture was repeated with still greater force in the Palais d'Industrie, in 1855, and the French mind was then at length fully disabused of its long-cherished errors on this subject. The following facts had come to light, and it should be remarked that they are given from the report of a French writer, who will not be suspected of flattering the English.

Although France has, beyond all question, the advantage both in soil and climate, she has tilled her land on a system that exhausted it, by an undue production of corn crops; while England, rearing a larger proportion of cattle, reaches corn through the intervention of green crops, and, by the supply of manure, which the cattle furnish, maintains the land in heart, and finds her corn increase in proportion to the increase of her cattle. On a surface of half the extent, Britain grows more food for animals than the whole of France; hence the supply of manure is in proportion almost four times greater. As a consequence, the crop of English grain per acre is more than double in quantity, and three times more in money value. And, taking all products into account, animal and vegetable, the produce of England, per acre, nearly doubles that of France: the animal products of an English farm being equal to the products, both animal and vegetable, of a French farm of the same extent.

England feeds about thirty millions of sheep, which nearly equals the number in France; but they are fed in England upon one-third the amount of land they require in France, and, in addition to that, an English sheep is twice as heavy as a French sheep, so that the English farmer produces six times as much mutton as does his French neighbour on the same space of land.

With respect to horned cattle, the comparison is not very dissimilar. France has ten million head of cattle, and England has eight millions. The French ox is reared for work as well as meat, and is killed when he has done his labour; the English ox is reared for meat alone, and is killed when he reaches his maximum size. Four millions of horned cattle are killed in France annually, and two millions are killed in Great Britain; but each island beast is two and a half times heavier than the French are, so that we raise one-fifth more in weight of beef upon a soil three-sevenths less in area.

So far for our authority, by whom the above facts, with some others analogous to them, were made patent to the French cultivators even before the late exhibition; and it was no wonder that they flocked eagerly to the agricultural show by which it may be said to have been inaugurated. The English cattle and sheep found crowds of admirers. A young bull, of the Durham breed, carried off the first prize, and a gold medal of the first class was struck in the name of Mr. Jonas Webb, for the Southdown sheep bred and exhibited by him.

At the same show were displayed a collection of English agricultural implements, consisting of ploughs, harrows, machines for reaping, for threshing, and for draining tiles, and others for field purposes. Experiments were made with the ploughs of various countries, in a field at Trappes, on the 7th of July. The English ploughs bore off the palm, doing by far the most effectual work in the neatest manner, and with the least resistance. The best of the French ploughs also did good work, but with the cost of nearly double the labour. The ploughs from Canada appear to rank next to the English. The trials made led to an acknowledgment of the superiority of British implements of agriculture; and the President, Count

Gasparin, complimented our countrymen on the perfection of their labours. A further result followed, of a more substantial nature: the French cultivators, anxious to obtain the advantage of such superior machinery, memorialised their government for a reduction of the duty on its importation. Their representation was successful. An imperial decree appeared in the "*Moniteur*" of September 7th, considerably reducing the duty on agricultural implements. This is a valuable concession, and was followed by orders, to a considerable extent, for English machines and implements; and thus were broken down the barriers which had so long stood between the industry of the two countries.

The machines which attracted most attention were the draining-tile machines of Messrs. Clayton and Whitehead. These were exhibited in work, and were surrounded by crowds of spectators from morning to night. It is fully expected that the French will avail themselves of the benefit derivable from the possession of these useful machines; though, as their tariff does not rank them with agricultural implements, they remain at present subjected to a duty on importation so heavy as to be almost prohibitory.

At a trial of threshing-machines, the palm was divided between the English and American makers.

The reaping-machines excited a lively interest. In Scotland they have been used by Mr. Bell, of the Carse of Gowrie (who was the first to construct an available machine), since the year 1826. The principle he adopted has been copied by nearly all subsequent makers. In the trial which came off at Trappes, Crosskill's machine (an improvement on Bell's), unfortunately broke down and had to be withdrawn. The machine of Dray (English), though defective in an important point, did its work rapidly; that of Atkins, and that of Mauny (Americans), were of still greater efficiency; but the prize was won by that of Mr. McCormick, an American, which cut two thousand metres in seventeen minutes. It was shown by these trials, that, in order to make reaping-machines thoroughly effective, they must not only themselves undergo further improvements, but that the present practice of cultivating corn in ridges must give place to a new plan, by which the fields may be made to present a smooth surface to the operation of the cutting instruments. This will involve a new system of drainage, in which the water of excessive rain-falls will be carried off under the surface, instead of between the ridges.

Among the foreign agricultural machinery exhibited, that of Belgium occupied a respectable rank; but there was nothing in the whole collection which, in the opinion of the most competent judges, offered any suggestions which it would be important to adopt for purposes of English farming.

Gold medals of honour for agricultural machinery were awarded to six individuals only—five of whom were Englishmen, and one from the United States of America.

We will close this brief glance at our agricultural position with some notice of the home progress that has been made since 1851.

In machine-making the characteristic feature has been the constant improvement of our esta-

blished implements, and the extension of their use throughout the whole farming community. Wherever the steam-engine has found a footing on a farm, there it has maintained its ground. In 1851, it was thought a remarkable thing that one firm, that of Clayton and Shuttleworth, should have constructed and sold in one year one hundred and forty portable steam-engines. Since then their sale has gone on increasing, and at the present moment exceeds five hundred engines in the year, for farming purposes—the engines latterly made being of seven instead of five-horse power. About ninety per cent. of these engines are used in England, the remaining ten being sent abroad or used for other than agricultural purposes. It is estimated that this single firm have added in four years a power equal to nearly eight thousand horses to the force of the farmer. The increased power afforded by steam has led to improvements in all the machinery it works, with the result of a vast economy of time and labour. All the machine makers concur in attributing these marked results to the Exhibition of 1851; and they tell us, that since that date, new sources of trade have been opened to them for machines of all kinds, not only at home but throughout the continent of Europe.

But the chemist, as well as the machinist, has come to the aid of the farmer, and the latter has shrewdly accepted his teaching. The farmer knows now that artificial manures are real agents of fertility, not mere stimulants, and that he can depend upon them with certainty. He is now scientifically aware of the principles on which the growth of corn depends, and is putting them in practice, to his own advantage and that of the community. Again, the chemist has taught him the proper value of various foods for feeding and fattening animals, by which he is prevented from a wasteful expenditure and loss of time in maturing his animal products.

A consequence, and also a proof of these facts, is the now rapidly increasing commerce in artificial manures, which has grown to be of national importance, and is receiving valuable aids at the hand of science. Waste substances from manufactures, and the refuse of daily life, are worked up into an available form, manures of improved character are produced by chemical means, and fresh sources of guano are sought out and discovered: from all directions new supplies for the fertilization of the land are reaching the English farmer.

Lastly, in the article of draining alone, something amounting almost to a revolution has been effected within the last five or six years. Strong lands have been most benefited by this practice, and in many parts of the kingdom whole districts have exchanged the character of unmanageable and unprofitable soils for that of land easy to work and satisfactorily remunerative. It is estimated that the total sum expended in draining, for the years 1853-4-5, was over five millions sterling, and that not less than one million acres of land were effectually drained. No less a sum, it is ascertained, has been spent in the purchase of guano, a single article of manure. The result of this liberal investment of capital in the soil is manifested not only in the production of increased crops, but in

the diminution of the labour by which they are obtained. Land well drained may be ploughed at an expense of one shilling an acre less than that which needs draining. All land is ploughed twice a year at least. Here is an annual saving of two shillings an acre. Again, land sown broad-cast needs two bushels and a half of seed to the acre—if sown with an improved drill one bushel and a half will suffice—a saving of £17 10s. on fifty acres. Again, the art of threshing wheat by the flail is 4s. per quarter—by the steam-machine it is 1s. 6d.—the saving on two hundred quarters being £25. In a word, the saving by the use of drainage and improved implements may be fairly calculated at one-third of the rent of the land upon an average well-managed farm. We need not wonder that the sagacious farmer is thoroughly awakened to the value of true science in reference to his operations.

#### CURIOUS NATURAL PHENOMENA IN CHINA.

ON a former occasion, in noticing the travels of M. Huc, we have referred to the extraordinary salt lake of Tartary; but, on crossing the province of Sse-tchouen, that observant traveller had an opportunity of seeing what are regarded as the great wonders of the region, namely, wells of salt and wells of fire. These phenomena, spreading over extensive tracts of country, are very numerous, and are, in most cases, of artificial formation. They afford a striking illustration of the laborious industry and patient perseverance of the Chinese, and furnish a means of subsistence to many of the people inhabiting the districts distinguished by their subterranean treasures of salt and fire. Every one possessed of a little money takes to himself a partner, and sink their joint capital in boring one or more of these wells. Their miniature and tortoise-like mode of procedure would considerably astonish a European, with his knowledge of mighty mechanical appliances and his impatience of rapid results. The Chinese, although said to be the inventors of gunpowder, are ignorant of the art of opening rocks by blasting, and consequently have to work their way downwards through from 1500 to 1800 French feet of rocky strata, by a most tedious process, which we need not here describe, but which usually occupies three years in boring a single well. The diameter of these wells is very small. The contrivance by which the patient artisans draw water from a well when completed, consists in sinking a tube of bamboo, twenty feet long, at the bottom of which there is a valve or sucker. When this has reached the bottom, a strong man shakes the rope by which the bamboo is suspended, every shake opening the sucker and making the water rise. The tube being full, a huge cylinder, upon which a rattan rope is wound, is worked by several buffaloes till it is drawn up. The application of steam power would here be of immense benefit, as the tremendous labour thrown upon these poor animals proves fatal to a large number of them. The water obtained from these wells is intensely salt, and by evaporation yields immense supplies for the markets of the interior.

But that which imparts special novelty and singularity to these specimens of engineering skill, is the inflammable nature of the air that issues from



FISHING CORMORANTS IN CHINA.

their mouths. For if, when the tube, full of water, is near the top, a torch were presented, a fierce flame, twenty or thirty feet in height, would be kindled, which would explode and burn the shed like gunpowder. This, no doubt, is what is known among chemists as carburetted hydrogen.

Besides these wells, however, there are others from which fire only, and no salt, is obtained. Even this is turned to account by the practical Chinese people. Indeed, these fire wells become a sort of gasometer on a small scale, yet with an illimitable supply of burning air. The mouth of the well being closed, a little hollow tube of bamboo is inserted, by means of which the gas can be conducted to whatever spot it may be required. Like our gas, it has only to be turned on and ignited, and it burns continuously. The flame is of a bluish colour, and usually three or four inches high, and one inch in diameter. In some districts the flame emitted from these wells resembles a furnace, and is used under huge caldrons for evaporating the water from the salt. There is another useful product also obtained from not a few of the large salt wells. When the miners have reached a depth of one thousand feet, a bituminous oil is found, which, like naphtha, possesses the remarkable property of burning under water. Sometimes as many as four or five jars of one hundred pounds each are collected in a day. It is used to light the shed that shelters the wells and the caldrons of salt. The mandarins, too, often buy large quantities of it, for the purpose of calcining

submarine rocks that render navigation perilous. Whenever a shipwreck takes place, the people make a kind of lamp of this oil, which they throw into the water near the fatal spot; and then a diver, and oftener still a thief, goes down to search for any article of value that he can secure and carry away, the subaqueous lamp lighting him perfectly.

At Tse-liou-ting there exists a remarkable prodigy of nature and art—a subjugated volcano, that has been caught, and tamed, and is exhibited like any wild beast of the zoological gardens. This phenomenon is situated in the mountains, on the borders of a little river, and with a small lake at no great distance. About it there are more than one thousand salt water wells, all of them emitting inflammable air. In one valley, there are four wells which yield fire in terrific quantities, and no water; and this is supposed to be the centre of the volcano. These wells at first yielded salt water; but the water having ceased to flow some years ago, another well was excavated to a depth of about three thousand feet, in the hope of reaching an abundant supply of water. This expectation, however, was vain; for, instead of water, there suddenly issued from the shaft an enormous volume of black air, resembling the vapour of a fiery furnace, and which, in escaping, makes a frightful, roaring sound, that can be heard at a great distance. A wall of freestone has been reared up round this outlet of pent-up subterranean forces, to guard against accident or



incendiary attempts. Not long ago an accident did occur. The fire used near by for the boiling of the salt-water caldrons having touched the surface of the well in question, a terrific explosion and a shock as of an earthquake took place, the whole surface of the surrounding court at the same moment appearing in flames. These flames, however, though only about two feet high, seemed to flutter over the surface of the ground without consuming anything. Four men, with heroic self-devotion, went and rolled an enormous stone over the top of the well, but it was thrown up again immediately into the air. Three of the men were unfortunately killed. Water and mud in large quantities were tried, but neither would extinguish the fire. At length, after fifteen days' labour, an immense body of water, forming a small lake, was collected on a neighbouring mountain, which was let loose all at once upon the fire and succeeded in quenching it. This was effected at a cost of about one thousand three hundred pounds—a large sum for China.

The surface of the ground within the court is extremely hot, and seems to burn under the feet; even in January the workmen on the spot are all half naked. A writer quoted by M. Hue states that he once lit his pipe at the fire of the volcano. In the winter the poor of the neighbourhood, to warm themselves, dig a round hole of a foot deep in the ground, in which they place a handful of straw and set light to it, and a dozen of these poor creatures will then seat themselves round it. When they have warmed themselves sufficiently, they fill up the hole with sand, and the fire is at once put out. We should fear that the inhalation of such fetid fiery vapours must be extremely prejudicial to health; but our informant offers to us no information on that point.

It is well known by our readers that, owing to the excessive populousness of the empire, the people overflow the dry land, and dwell by myriads in junks and fishing vessels on the bosoms of their rivers and canals. It may not, however, be so generally known, that in the interior floating islands are actually constructed, which are capable of bearing on their surface whole colonies of people, with elegant dwelling-houses, fruitful gardens, and plantations of every kind. These floating islands consist of enormous rafts, generally constructed of bamboos, which resist the decomposing influence of the water for a long time. Upon the raft is laid a tolerably thick bed of vegetable soil, from which an abundance of provision is derived. During the leisure time of the inhabitants of these floating farms, they employ themselves in fishing; the depths of the lakes thus yielding to them as rich a harvest as their miniature fields. Many birds, particularly swallows and pigeons, build their nests in the foliage that adorns these solitary islets. Towards the middle of the Lake Ping-hou, M. Hue encountered one of these islands on its way to take up a fresh position. It moved very slowly, though there was a great deal of wind, and large sails were attached to the houses, as well as to each corner of the island; the inhabitants—men, women, and children—lent their strength to aid its progress, by working at large oars. The migrations of these peculiar mariners are often

without any apparent motive. Like the Mongols in their vast prairies, they wander at will; but, more fortunate than these roamers, they have constructed for themselves a little solitude in the midst of civilization, and unite the charms of a nomadic life to the advantages of a sedentary abode.

When passing across Lake Ping-hou, our traveller was favoured with an opportunity of witnessing the performances of the celebrated Chinese fishing cormorants, which are represented in the accompanying cut. Most of the fishing-boats on the lake, instead of being furnished with nets, carry a large number of these duck-like birds perched on the edges, which may be seen continually diving into the water, and coming up with a fish in their beak. In order to control the vigorous appetites of their feathered associates, the Chinese fasten round their necks an iron ring, large enough to allow of breathing, but too small to admit the passage of the fish they seize; while, to prevent their straying about in the water and wasting time in mere indulgence, a cord is attached to the ring and to one claw of every cormorant, by which he is pulled up when he is inclined to rest for a few minutes; but if he abuses this indulgence and forgets his business, a few strokes of a bamboo recalls him to a sense of duty, and the poor diver patiently resumes his laborious occupation. In passing from one fishing-ground to another, the cormorants perch side by side on the edge of the boat, and their instinct teaches them to range themselves of their own accord in nearly equal numbers on each side, so as not to disturb the equilibrium of the frail vessel.

## STUDIES IN HISTORY.

### THE MANHOOD OF FREDERICK THE GREAT.

FREDERICK, when he ascended the throne of Prussia in 1740, was twenty-eight years of age. He found that the parsimony of his father had accumulated a large treasure, and transmitted to him the resources of the kingdom in a high state of efficiency. It might have been expected, that after the restraints to which he had so recently been subjected, he would now plunge into those worldly pleasures which on every side courted his indulgence. A complete change, however, took place in his character, and, with his new position, new mental powers seemed to develop themselves. The companions of his youthful amusements had expected, on his accession to power, a liberal share of his patronage; one of them, indeed, was so overwhelmed with congratulations upon his supposed good fortune, that he had to employ fifty clerks to reply to his correspondents. Frederick mortified these persons, however, not a little by appointing them only to small offices, where the pay was slender and the work heavy. He at the same time assured various individuals, who dreaded his displeasure in consequence of having been the advisers of his father in the severe measures which had been adopted against him, that the past would all be forgotten.

Frederick no sooner ascended the throne, than he commenced those habits of close and systematic attention to business which distinguished him

throughout the whole of his reign. The care, indeed, with which he arranged his time, may well furnish an example to even the Christian reader, and stimulate him to an increased diligence in the cultivation of this duty. Every hour, Frederick determined, should have its allotted occupation. "You are right," he wrote to a friend, "in supposing that I work hard; I do so in order to live, for nothing has more resemblance to death than idleness." His first attempts in this direction were characterised by extravagance, for he endeavoured, by the use of strong coffee and other stimulants, to do without sleep altogether. Finding, after a trial of four days, the hopelessness of this attempt, he contented himself with ordering his attendants to awake him at four o'clock in the morning during summer, and at five during winter. The couch on which he reposed was a very hard one, and offered but few inducements to luxurious indulgence. As, however, he sometimes, after he was called, manifested an inclination to lie longer in bed, he compelled his servants, under a severe penalty, to force him out of his slumbers by applying a wet towel to his face.

On rising in the morning, a few minutes served to discharge the duties of the toilette, and when his dressing was completed, a page brought him a basket of letters. These he divided into three parcels: the first consisted of letters to which he meant a favourable reply to be given—these were doubled, with the address inwards; the second were those containing requests which he did not intend to grant—these were folded with the address outwards; the third were doubled twice, as a sign that they required further consideration. By these few marks he simplified very much the arrangement of his large correspondence.

His secretaries sat in an adjoining room, opening the more ordinary letters, and reading their contents to the king, who while at breakfast dictated a brief reply, which was marked in short hand on the margin. The secretaries then retired, generally overburdened with work, to prepare the necessary answers for Frederick's signature. Although the pay of these officers was large, yet their situation was far from enviable. The king was so much afraid of his secrets being disclosed, that all who were connected with this department of his labours were treated with almost oriental jealousy. His secretaries were little better than slaves for life. They lived in complete solitude, and were not even allowed to receive visitors at their houses. "You must forget," said Frederick, when giving one of these officers his appointment, "you must forget, if you would serve me as you ought, your family, your friends, and your relations."

After having dismissed his secretaries, Frederick finished his breakfast, which consisted chiefly of chocolate and fruits. Of the latter he was exceedingly fond, and would pay large sums to have on his table the earliest productions of the hothouse. Parsimonious as he in general was, he would not hesitate, in gratifying this taste, to give ten shillings for a single cherry, raised in December or January. About nine in the morning, Frederick was waited on by his secretary-at-war, with whom he transacted all business relative to his army. At ten o'clock he sent this functionary away, laden with business sufficient to occupy him until the

same hour on the following day. From ten to twelve the king busied himself in miscellaneous pursuits; reviewing his troops, writing his private letters, or employing himself in literary composition.

He would occasionally relax himself by a walk in his garden, followed by his favourite dogs. Of these dumb companions he was very fond; and they were allowed to occupy the best apartments in his palace, and even to spoil the furniture, without being punished. There was some reason for his attachment to one of these animals, as it had accompanied him during some perilous passages in his military campaigns, and had refrained from barking, at a time when to have done so would have endangered its royal master's safety. When, however, Frederick's severity and even cruelty to his fellow-creatures are considered, this excessive attachment to his dogs can hardly be viewed as a proof of kindness of disposition, but must be regarded as the result of a capricious sensibility, similar to that which led Couthon, one of the greatest monsters of the French revolution, always to fondle a little spaniel in his bosom.

At twelve o'clock precisely the king sat down to dinner. He was fond even to excess of the pleasures of the table, a dozen cooks of various nations being employed to minister to the gratification of his palate. A strict economy was, however, at all times observed. Even a bottle of wine could not be opened without the king's permission, and the number of dishes was fixed by rule, and a certain price paid for each. "He might sometimes, though rarely," says a writer, "be extravagant beforehand, but when once the dainties were devoured, he would often murmur at the bill." At the end of the bill of fare, he would reckon up the cost of each dish, and sometimes write upon it, "A robbery—an impertinent robbery." A few friends occasionally dined with him, and in such cases the entertainment was extended till four o'clock, but in general it terminated much sooner. At the hour last mentioned, the king had brought to him for signature the letters which his secretaries had since morning been engaged in writing. He was particular in giving his correspondents an answer in course of post; but he insisted upon their observing great brevity in all communications to him. He particularly disliked letters which extended over more than one page. It was Frederick's custom in many cases to add a few words in his own handwriting to the letters written by his secretaries, where the latter had not expressed his meaning with sufficient force. Some of these annotations are very curious. A public singer, for instance, had made a complaint to the king. "You are paid to sing, and not to write," was his sarcastic postscript. To an officer who had asked leave to retire from the army, he wrote, "The hens that will not lay, I will not feed." To an application for money it would be, "I cannot give a single groschen—I am as poor as a rat." After completing the transmission of his letters, Frederick had an interview with the directors of his Academy of Sciences. A concert, or a supper with literary men, then concluded his evening. He was generally remarkably regular in observing the hours at which he retired to rest; and thus was enabled, with almost unbroken uniformity, to

maintain that daily round of duties and division of time which we have just sketched. To his love of method may be ascribed the ease with which he discharged the various occupations devolving on him; and however much we must deplore the misdirection of this energy and system, it must be confessed that they present points of imitation even for the pious reader. Great talents and opportunities of usefulness are often lost or seriously impaired by persons whose motives are pure and principles correct, merely from the want of habits of punctuality and order.

Frederick ascended the throne of Prussia in 1740, and died in 1786. Although his reign extended over so long a period, its leading events may be summed up in a few lines. The wars in which he was engaged, and which excited at the time so deep an interest in this country, appear, when viewed after the lapse of a century, dry and uninteresting to the general reader. So ephemeral is military glory! When Frederick commenced his reign, Voltaire dedicated to him a flattering epistle, stating that philosophy and virtue had now everything to expect, as a Socrates had ascended the throne. Frederick soon showed the falseness of these compliments by commencing a course of aggressions on his neighbours. Maria Theresa, empress of Austria, he attacked when in a defenceless state, and wrested from her the valuable province of Silesia. This attack was the more ungenerous, as, through the intervention of Austria, Frederick's life, when threatened by his father, had been spared. Such was the commencement of Frederick's military career. The desire of seeing his name in history and in the newspapers, was, he himself admits, the heartless cause of his embarking in a contest which caused the lives of so many individuals to be sacrificed. These aggressions, however, brought down a severe retribution. Many of the powers of Europe, alarmed at his rapacious proceedings, combined together, and for seven years maintained a destructive warfare in his territories, which left him at the end of that period, successful, it is true, against his numerous opponents, but stripped of his treasure, and with all the resources of his kingdom much enfeebled. "A great part of Pomerania," says a writer, describing the results of this conflict, "a great part of Pomerania and Brandenburg was changed into a desert. There were provinces where hardly any men were to be found, and where the women were therefore obliged to guide the plough. In others, women were as much wanted as men. At every step appeared large tracts of uncultivated country, and the most fertile places in Germany presented only the appearance of a desert." How appalling the reflection that such miseries were eventually to be traced back to the ambition of a single individual, whose principles had been sapped by infidelity. Such, however, are the fruits of sceptical opinions when they are fairly carried out. They render the inmate of a cottage a discontented subject, and convert the possessor of a throne into a hardened and unfeeling despot.

Some of the instructions given by Frederick, for the conduct of his military operations, mark the unrelenting character of the strife in which he was engaged, and the unscrupulous expedients to which he had recourse. His generals were ordered, when

in a Protestant country, to act the part of zealous defenders of Lutheranism, but when in a Roman Catholic country, to take the opposite part. If in want of information respecting the movements of the enemy, they were enjoined to make use of the following expedient: "Take," says Frederick, "a rich burgher, possessed of lands, a wife, and children—compel him to go into the enemy's camp with one of your spies as his servant, assuring him that if he does not bring the latter back safe, you will set fire to his house and massacre his wife and children. I was forced," he adds, "to try this cruel expedient—it answered my purpose."

The strictness with which military discipline was preserved by Frederick was almost proverbial over Europe; but the perfection of his troops was not attained without a great sacrifice of the latter's comfort. "The leading principle," says Dr. Moore, "of his Majesty's military system seems to be, to reduce his troops to the nature of machines, to teach them to have no will of their own, and to be as deaf and pitiless as their own muskets." At the word "Halt!" the soldiers stood immovable as a statue. A squadron of guards would charge at full gallop, and yet out of the whole body one horse's head would not be a foot beyond another's. The line, says a spectator, was so exactly straight, that Euclid himself could not have found fault with it. This skilful manœuvring was, however, as we have hinted, procured at a great sacrifice of the soldier's comfort. They were punished unmercifully for the slightest infringement of duty. "I cast my eyes," says a resident at Berlin, "upon a stripling of fifteen years, an officer, and witnessed his taking out of the ranks a soldier at least fifty years of age, to whom he gave repeated blows with his cane on his arms and thighs, for some trifling offence he had been guilty of in the handling of his arms, while the only reply of the unfortunate sufferer was silent and indignant tears."

Even in Frederick's favourite regiment, the Guards, the greatest hardships had to be encountered. The officers, however, had the richest dresses, and everything that could flatter their vanity and gild the chains in which they were bound. At four o'clock in the morning their exercise commenced. They were obliged to leap over hedges so high and ditches so wide, that many of them had their legs broken. They had also to ride at full gallop with such impetuosity, that seldom a week occurred without an accident. This was their morning's employment. After twelve o'clock their labours recommenced, leaving them scarcely any leisure. Even at night, when they had retired to rest, they were often aroused from their slumbers; and the officer who did not present himself on horseback in the course of eight minutes was put under arrest for a fortnight. With great propriety does a writer sum up the miserable condition of Frederick's soldiers: "For a foreign cause, for a worthless pay, they had to rush through the fire of batteries, where death mowed down whole ranks; waded through swamps and half frozen lakes; glide down precipices with their muskets between their legs; and climb steep heights slippery with ice and blood."

In perusing such a narrative the Christian must involuntarily heave a sigh at the infatuation of his fellow-creatures, who can thus exhaust their

energies in pursuits so profitless and unsatisfactory, while they despise the invitations of a far more gracious Master, to take up a burden which is truly light, and to commence a service whose toils are alleviated by the richest consolations, and followed by unfading glory and everlasting enjoyment.

### THE HADJ FAIR.

BANG! bang! bang!—Dum! dum! dum! Such was the incessant clamour ringing in my ears as I sat over my early breakfast, a few years since, at Antioch. Now our every-day life at Antioch was monotonous in the extreme, and nothing could exceed the stillness that usually prevailed in that ancient city, both by day and night. Save the casual cry of some vender of hot cakes or new milk, the occasional howl of a dog, and the squalling of a neighbour's child, by 8 A.M., generally speaking, the town was hushed in intense silence. Now and then, perhaps, a stray horseman would clatter past the door, or an angry camel-driver remonstrate with some fractious camel; but even these slight interruptions were rare.

I was sitting in my own yard, under the shade of a splendid apricot tree, which, ever and anon, as the morning breeze rustled through it, dropped a fat apricot almost into my plate—just as a relish to my breakfast, you know!—a couple of plaintive turtle-doves were cooing to their mates from the branches of the apricot; and my servant, Michali, a Syrian Greek, was busy superintending the culinary department at the further extremity of the yard.

"Michali!" quoth I, "what's all that firing and drumming about?"

Michali was as ignorant as myself; but being of a timorous disposition, he tremblingly suggested the possibility of an *émeute*. What little appetite remained to me disappeared rapidly at the horrible suggestion of my servant, which gave birth to many grave fears. I knew the Turkish population to be extremely fanatical; I knew that this would not be the first instance of a general massacre of Christians and Jews being attempted; I also knew that there was no mercy to be expected at the hands of these bigots, and that the chances of escape in any direction were very slight indeed. Nevertheless, I determined to try. Our horses were in a stable in the same court-yard and next to the kitchen, and the servant and I were busily occupied saddling them when a knock came at the street door.

"That's Mustapha, the Turkish barber, come to shave you, master," exclaimed my dark Syrian, almost livid with fright; "whatever you do, don't get shaved to-day; he'll be sure to kill you."

With this consolatory caution, the trembling Greek went and opened the street door, and let the barber in. There was nothing that I could see about Mustapha to encourage my servant's suspicions. I thought it wise, however, to seek some explanation from him relative to the unusual turmoil reigning within the town; and he told me that it was occasioned by the arrival of the annual caravan of pilgrims bound from Turkey and Asia Minor to Mecca and Medina. He further told me

that, as was the annual custom, there would be a grand fair or bazaar held upon the banks of the Orontes on that day, and upon the two succeeding ones, and he strongly recommended me to attend it, not only for the novelty of the spectacle, but also because many rare and choice articles, brought from Stamboul and other Turkish cities, would be exposed for sale, and I might secure many things not obtainable in Antioch or even at Aleppo.

Acting upon the barber's advice, and attiring myself in a native costume (for it would have been the height of imprudence to venture amongst some thousands of half-crazed fanatics in the, to them, detestable European garb), I furnished my pocket with a good supply of piastres, while the faithful Michali followed me, bearing under his arm a huge carpet-bag as a receptacle for purchases in perspective.

I have seldom witnessed a more lively or pleasing picture than that which presented itself to our gaze as, turning out of the last narrow street, we passed through St. Paul's gate, and emerged upon the ancient old bridge, over whose time-worn stones so many eminent historical personages have strode. The sun shone brilliantly, the sky of pale blue being dimpled here and there with a purple-hued cloud—harbingers of the approaching sea-breeze; the air was laden with the odour of orange flowers then in full bloom; and innumerable doves were flying to and fro, and cooing plaintively from minaret and house-top. The Orontes flowed placidly onwards towards the valley of Seleucia; the distant ocean was speckled here and there with the white sails of some sponge-fishers' boats; and in bold outline, palpably rising up from the horizon against the clear blue sky, towered the lofty Cassius—the southernmost headland of Antioch's gulf. On the bridge itself all was life, hurry, and bustle. People in holiday attire, men, women, and children, Turks, Jews, Armenians, Greeks and Latins, were jostling and hustling one another; laughing and joking the while in the utmost good humour, and each one intent upon laying out, according to their respective means, something at that day's fair. All these were thronging outside the city towards the spot where the fair was to be held. Coming in an opposite direction, and hurrying over the bridge towards coffee-shops in the town, were hungry cadaverous-looking men, in all kinds of grotesque costumes, and with hunger and fatigue depicted in so much as could be seen of their faces through a perfect wilderness of beard and moustache: these were pilgrims hurrying into the town to purchase their morning meal. Now and then one of these, who had had the start of his neighbour, hurried past us on his way back to his tent again, laden with spoil to appease nature's cravings for that day, and taking huge bites out of a stout brown loaf as he strode along.

The spot where the fair was to be held was exceedingly picturesque as viewed from the bridge. It occupied a pleasant sloping grass plot, interspersed with handsome tall plane trees, whose leaves glittered like silver in the breeze, and extended along the banks of the Orontes to the left and right of the bridge as far as the eye could reach. Here some thousands of tents were pitched, of the most varied description of pattern, hue, and size; the prevalent colour, however, was a light



green—the colour of the Prophet's banner. There were black tents, blue tents, yellow tents, red tents, white tents, striped tents, and tents of undecipherable tinges. Prominent amongst these stood the elegant and commodious tent of the Scheriff il Hadj (the prince or leader of the pilgrims, who is generally a relation of the sultan), and those of the ladies of his harem. Then came tents of all kinds of pretensions, from the ordinary military tent to what looked amazingly like a back settler's impromptu covering—a horse blanket stuck up on a walking-stick. The tents were all pitched in a double row, so as to permit of an uninterrupted thoroughfare between; and on a rug before each tent the proprietor exposed for sale his stock in trade, which consisted chiefly of articles that could be packed within a small compass and which weighed comparatively little. Behind this Hadj encampment, collected together and guarded by bands of pilgrims, who at stated periods relieved each other, was the baggage belonging to the Hadj, consisting principally of fodder for their cattle and horses, but also comprising some bales of costly goods, taken, I believe, as a peace offering by the scherrif to the high priest at Mecca. Here, also, glittering resplendently in the sun, were the costly and jealously closed litters which conveyed the ladies of the cortège, and which, when in motion, are slung either between mules or camels. Further back, again, the surrounding hills were dotted with camels, horses, mules, donkeys, etc., all belonging to the Hadj, and all browsing contentedly on the rich and luxuriant pasturage abounding in the valley of the Orontes.

As we entered the busy scene, the din and confusion grew worse and worse. Flags there were in abundance, floating from spears driven into the ground in front of each tent; horse-tails, too, were floating in the breeze; and in every tenth tent some wretched musicians were executing heartrending music upon shrill wind instruments. The whole air of the place was tainted with an overwhelming odour of sandal-wood and spices—an odour invariably connected with all oriental bazaars. As for the goods displayed for sale, it would have occupied me a week to have taken a proper inventory of any one of these pilgrims' stock in trade. From tin boxes, of an endless variety of size and shape; from cunningly knotted rags; from more carefully packed leather bags; from empty fig drums, and sometimes an ancient herring keg, these speculative pilgrims, like so many wizards, produced the least expected and most astounding things conceivable. Now the eye was dazzled by a gay red tarboush, glittering with imitation pearls and gold; then a musk-rat's tail was presented to view—a charm against snake's or scorpion's stings; next a beautifully embossed tobacco bag; then beads of all colours, sizes, and descriptions; ottar of roses; amber and imitation mouth-pieces for Turkish pipes; costly and elegant cut-glass bottles for narghelles; common round snuff boxes with glass lids (which command a prodigious sale), gaily coloured cotton handkerchiefs; exquisitely worked Stamboline ditto; silk and gold boshiers; slippers of an endless variety and pattern; empty phials of all colours and sizes for ladies' toilets; French pomatum; in short, as I said before, it would have occupied a week to have

made an exact inventory of any one pilgrim's stock in trade.

On the third morning the fair was ended; the Hadj moved on towards Aleppo, and once again the ancient city of Antioch relapsed into that silent tranquillity, under which I for one love best to remember its cherished name.

### AN OLD ROMAN CITY.

SOME years ago we were travelling in Spain. For three weary days our course lay across desolate wastes. We halted, at long intervals only, at miserable, lonely *posadas*, or inns, for refreshment and a few hours' repose. Towards the close of the fourth day we descended, at the extremity of the large plain we were traversing, a confused group of lofty edifices starting forth, as it were, from the slight haze which shut in the view. We were apparently approaching a magnificent city.

"Shall we at last," I asked myself, "find there a population?"

"No," was my mental answer; "but there *was* a vast one there, ages ago."

The imposing objects thus looming in the dim distance were the ruins of the ancient Roman city of Emerita Augusta, now degenerated into the humble title of Mérida. To visit these ruins was the object of my journey from Madrid. The modern Spanish town of Mérida is propped up, as it were, by the lofty remains of the ancient Roman city of Emerita Augusta. Without any exaggerated figure of speech, it might be compared to a rickety child reposing in the arms of a giant.

The founders of the noble Roman city whose vestiges I was now contemplating, selected for its site a genial climate, a once-fertile country, and a gently-flowing river, whose waters could be applied by artificial means to the irrigation of the rich land by which it was surrounded. The Roman authorities, duly appreciating the advantages of such a position, raised Emerita Augusta to the highest possible degree of splendour. It formed the nucleus of a Roman colony, and was endowed with all the privileges and immunities of that rank. It also became the favourite place of retirement for those public functionaries and veteran warriors who had become weary of popular applause. It is stated by trustworthy writers, that when at the height of its splendour it contained about one million inhabitants.

The fall of the Roman empire, the inroads of the Goths and Vandals, and the domination of the Moors, passed like gigantic harrows over the surface of Emerita Augusta, but not with sufficient force to level the colossal Roman monuments by which its site is still embellished. It may be safely said that there is scarcely a stone in the construction of any house in Mérida which has not formed part of a Roman edifice. Nothing is more common than to see, embedded in the wall of a cottage built in the nineteenth century, a fragment of sculptured marble or stone, which had probably adorned a Roman palace or some other remarkable building in the first century. Entrances to humble dwellings may be seen paved

with ancient sepulchral stones, their inscriptions not yet entirely obliterated; and daily the rustic inhabitants pace to and fro over perhaps the memorial-stone of a Roman proconsul, or a slab, whose now undecipherable inscription was peradventure an invocation to some heathen deity. The mangers in their stables, too, are frequently formed of jasper slabs, evidently of Roman workmanship, of which fact the owner of the mules, just unharnessed from his primitive plough, is as ignorant as they are.

The materials of the decayed inferior Roman buildings lie scattered about in irregular mounds of nearly pulverized mould, forming, so to speak, an artificial soil above the natural one; and the spade of the husbandman often strikes against a funeral urn, which may once have enshrined the ashes of a hero, or he brings to the surface some numismatic treasure, to whose value he is of course utterly insensible.

My first object on arriving at this interesting spot was to obtain the services of a guide. After making many inquiries, I was at last recommended to engage an Estremaduran belonging to the humbler classes, who was said to be well informed as to the most remarkable objects among the vestiges of Emerita Augusta. My cicerone was himself a remarkable ruin, and by no means in such good preservation as the Roman antiquities. His legs were bowed like an ancient arch, as though the weight of his large drooping head, or cornice, had become too ponderous for the base of the human edifice. His arms, too, were curved, as might be portions of two lateral arches, the lower parts of which had in the course of time become gradually worn away by the friction of two branches of a stream continually flowing by them. His face might have afforded materials for profound antiquarian research. It was like an ancient coin or medal, which had, for a very long time, lain buried in the ground, and had become corroded and discoloured. The features appeared to be half worn away, and when viewed in one particular light, they resembled an antique inscription, and in another a human visage which had been disfigured by disease or accident. His unkempt hair, waving in the breeze, resembled the wiry faded grass which thrusts itself out and droops weakly from the crevices between the columns and their capitals in the remains of old edifices. The interstices between his jagged teeth produced the effect of a crazy battlement; and the inclined position of his whole body put one in mind of a wall apparently ready to tumble down, but still standing, like the leaning tower of Pisa or the Torre Nueva of Zaragoza.

"Of what date are you, my good man?" said I. "How old are you?"

"Three dollars and a half, señor," he replied, meaning that he was as many years old as there are reales in that number of dollars or medals.\*

Really I should not have thought he was of so modern a date.

"And are you the person who shows and describes the ruins to strangers?"

"Yes, señor, I do know something about them."

\* There are twenty reales in the Spanish dollar, consequently the cicerone's age was 70.

"Are the ruins visited by many travellers?"

"Sí, señor, mostly foreigners; above all by the English, who are wont to carry away some fragments. They sketch and draw and write, and do I don't know what besides. They quite worry one with their questions. All these English appear to be half mad. As to Spaniards, señor, very few visit the ruins: the greater portion of them pass by without making any inquiries concerning them."

By this time we had reached the bridge—a grand Roman work, spanning the widest part of the river Guadiana. It has between seventy and eighty spacious arches, is nearly two thousand five hundred and eighty feet long, and thirty wide. You cannot clearly see one end of it when standing at the other. This bridge is of itself a history of the various dominations under which Spain has passed. The two heads of it are preserved perfect and intact to a certain distance. The remainder of this vast structure has been repaired and patched up in various parts by the Goths, the Moors, and the Spaniards. The epochs of these various mendings are revealed by the distinct and different forms of the piers, by the colour of the stone, and the several methods of fashioning it. The largest portion of the repairs is the most modern; and the funds for carrying out the work were raised by a tax, levied on the people living within a circuit of fifty leagues from Mérida.

Emerita Augusta was abundantly supplied with water by two magnificent aqueducts. A modern aqueduct has been constructed between the ruins of the two ancient ones, like an insult and a scoff at a fallen power. Nevertheless, the ruins are triumphant. One is astounded at the view of the remains of their colossal arches. The very materials of which they are formed evince the great ingenuity of the Roman architects. They are not blocks of stone dug out of a quarry, but pebbles and clay, kneaded together into a compact indestructible cement, to which Time has given the finishing touch, both of colour and strength. The pick-axe flies into pieces when forcibly struck against it; the power of man breaks down before man's own work. One of the two Roman aqueducts would appear to have been destined only to form a vast reservoir of water to supply a naumachia, or naval spectacle.

When we reached the site of this naumachia, now nearly levelled by the hand of Time, my cicerone said gravely, "This is the bath of the Moors."

"Thank you, my worthy guide," I courteously answered. "How many Moors do you suppose this bath held?"

"*U!*" he replied solemnly, seemingly appalled by the bare idea of the multitude of Moors who might have been stowed in so capacious a bath. "*U!* señor, only fancy; it is quite beyond me."

Of all the public Roman structures, the circus is in the best preservation. Some parts of it have fallen in, and the original level is in consequence so much raised, that many of the entrances are blocked up. However, some of the receptacles for wild beasts, gladiators, and criminals are entire. In certain parts the rows of seats are quite perfect; and one might imagine them to have been just vacated, and the shouts of the departing spec-

tators and the rustling of togas against the benches still vibrating on the ear.

"This," said my sapient guide, "was the Plaza de los Toros—the bull-fighting place. From that cell the bull sallied forth;" and, pointing to a gateway nearly filled up with rubbish, he added, in a low mysterious tone, "here the priest entered, bearing the Holy Sacrament, to administer it to any toréro (bull-fighter) who might have been mortally wounded by a bull."

A loud burst of laughter, which I could not suppress, excited by the strange juxtaposition of ideas, resounded through the spacious area of the ancient Roman circus. From thence we proceeded to the Amphitheatre, not in such good preservation; then to the Hippodrome, whose boundaries were scarcely discernible. We afterwards proceeded towards the Via Romana, now called the Calzada Romana, or Roman Causeway. Here there must have been many tombs. Some, indeed, have been discovered.

Tríjan's Arch, which stands in the centre of modern Mérida, is a fine Roman antiquity. In each of the two lateral niches beneath the arch there is part of a white marble statue, sculptured in the purest Greek taste. These statues are sadly mutilated; yet even in that state they are worthy of being preserved as two antique relics of the first order. They are far superior to anything I had seen in the Madrid Museum of sculpture from the ruins of Mérida. I was disgusted at seeing these statues—the work of some Phidias of the Roman empire—being gradually destroyed, not by decay, but by the stones cast at them daily by the mischievous boys and youths of the modern and degenerated town.

At about half a mile from Mérida there is a chapel, dedicated to Santa Olalla, patroness of the town and its district. This chapel is called El Hornillo de la Santa, or the Saint's Oven, on account of her having been thrust into a heated oven, on that spot, and burnt to death. The chapel is constructed out of fragments of a temple of Mars. There are beautiful relievos, portions of columns, and other remains of fine Roman architecture. On seeing them all huddled together in this confined modern inclosure, I mentally exclaimed, "This resembles a man of colossal height, whom time and disease have bent and reduced to the dimensions of a dwarf."

Within the chapel is dimly seen the image of Santa Olalla; and on the portal of the Ermita, where the hermit in charge of the chapel dwells, I could make out the following inscription:—

MARTI SACRUM  
VETILLA PACULLI.

The contrast between the image and the inscription was singular. I imagine that the face of the inscription was originally brass. The metal had doubtless been removed by some Vandal, and now all that remained were the hollows in which they had been imbedded—like the eyeless cavities of a skull.

On the summit of a lofty Roman column, in the centre of a square, stands a figure of Santa Olalla, with the face turned towards the East. This plaza was the terminus of my antiquarian promenade.

"Look, señor," said my venerable ruin, the cicerone—siding up to me and pointing to the figure—"look! That is Santa Olalla again! I cannot recollect in what year it was that there was a deadly pest in Mérida; and at that time the Santa Olalla you are now looking at had her face turned towards the West. In that dire calamity the people made earnest supplications to the saint, day and night; and one morning, at day-break, the face of the image was observed to be turned towards the East; and, señor"—here the ancient man devoutly crossed himself—"from that hour the plague ceased. The saint's face has continued ever since looking in the same direction, and we are no longer in dread of the plague coming to Mérida."

Such is but a fair specimen of the gross delusions and absurdities which the Romish Church impose upon its dupes.

Mérida—the ancient Emerita Augusta, where there are still so many numismatic treasures which are so little appreciated—has now a population of about five thousand souls only, and is a place of no importance. All that remains worthy of remark are its stupendous ruins and its proud recollections. I reverently saluted the former, and then turned away, imbued with that exalted yet melancholy impression which remains on the mind for a considerable time after contemplating the imposing relics of human art, and dwelling upon the insignificance of the materials out of which they were constructed, only to fall again, sooner or later, into their original disjointed, scattered, and pulverized condition. My thoughts turned, as I departed, from these evidences of human change and instability to that city which hath permanent foundations and undying inhabitants, whose Maker, Builder, and Ruler is God.

#### ANECDOTE OF ARCHBISHOP USHER.

A FRIEND of Archbishop Usher frequently urged him to write his thoughts on sanctification, which at length he engaged to do; but a considerable time elapsing, the performance of his promise was claimed. The bishop replied to this purpose: "I have not written, and yet I cannot charge myself with a breach of promise, for I began to write; but when I came to treat of the new creature which God formeth by his own Spirit in every regenerate soul, I found so little of it wrought in myself that I could speak of it only as parrots, or by rote, but without the knowledge of what I might have expressed; and, therefore, I durst not presume to proceed any farther upon it."

Upon this, his friend stood amazed to hear such a humble confession from so eminent a person. The bishop then added: "I must tell you, we do not well understand what sanctification and the new creature are. It is no less than for a man to be brought to an entire resignation of his own will to the will of God; and to live in the offering up of his soul continually in the flames of love, as a whole burnt-offering to Christ; and oh! how many who profess Christianity are unacquainted, experimentally, with this work upon their souls!"

SOME people's religious opinion is only a stake driven in the ground—does not grow—shoots out no green—remains just *there*, and just *so*.—Foster.

## Varieties.

**PETRIFIED WOOD IN THE ARCTIC REGIONS.**—On excavating to some extent, we found the entire hill a ligneous formation, being composed of the trunks and branches of trees; some of them dark and softened, in a state of semi-carbonization. Others were quite fresh, the woody structure perfect, but hard and dense. In a few situations the wood, from its flatness and the pressure to which it had for ages been exposed, presented a laminated structure, with traces of coal. The trunk of one tree, the end of which protruded, was 26 inches in diameter; that of another, a portion of which was brought on board, was seven feet in length, and three feet in circumference, and dense in structure, although pronounced then to be pine. Other pieces, although still preserving the woody structure, had a specific gravity exceeding that of water, in which they readily sunk, from their having undergone an incipient stage of impregnation with some of the earthy products of the soil. Numerous pine cones, and a few acorns, were also found in the same state of silicification. The trunks apparently extended a considerable distance into the interior of the hill, and were bituminous and friable. Many of those which were embedded, crumbled away on being struck with a pickaxe, which readily found its way into any part of them, rendering their removal impossible; some of them were in such a state of carbonization as to approach lignite in character. The whole conveyed the idea of the hill being entirely composed of wood. As far as our excavations were carried, nothing else was met with except the loamy soil in which they were embedded; but the decay of the wood in some places appeared to form its own soil. The petrifications, with numerous pieces of wood, were strewn everywhere over the surface of this and many of the contiguous hills. Many specimens were obtained, varying from one to fourteen inches in length, the longest not exceeding five or six in circumference; they consisted of portions of the branches of trees. Some of them were impregnated with iron (brown hematite), had a distinct metallic tinkle when struck, and were heavier than other pieces without the metallic impregnation or sound; they were simply silicified, the sand entering into the composition of the soil being siliceous or quartzose. Several smaller pieces of fresh wood were also found strewn about, which had not been, perhaps, subject to the petrifying influence of the water.—*Dr. Armstrong's "Personal Narrative of the Discovery of the North-west Passage."*

**THE POISON OF THE COBRA DI CAPELO.**—In dissecting a rat which had been killed by the side of a cobra, anxious to see if the skin itself was affected, I scraped away parts of it with my finger-nail. Finding nothing but the punctures, I threw the rat away, and put the knife and skin in my pocket, and started to go away. I had not walked a hundred yards, before all of a sudden I felt just as if somebody had come behind me and struck me a severe blow on the head and neck, and at the same time I experienced a most acute pain and sense of oppression at the chest, as if hot iron had been run in and a hundred-weight had been put on the top of it. I knew instantly, from what I had read, that I was poisoned; I said as much to my friend, a most intelligent gentleman, who happened to be with me, and told him if I fell to give me brandy and eau-de-luce, words which he kept repeating in case he might forget them. At the same time I enjoined him to keep me going, and not on any account to allow me to lie down. I then forgot everything for several minutes, and my friend tells me I rolled about as if very faint and weak. He also informs me that the first thing I did was to fall against him, asking if I looked seedy. He answered, "No, you look very well." I don't think he thought so, for his own face was as white as a ghost; I recollect this much. He tells me my face was a greenish yellow colour. After walking or rather staggering along for some minutes, I gradually recovered my senses, and steered for the nearest chemist's shop. Rushing in, I asked for eau-de-luce. Of course he had none, but my eye caught the words, "Spirit ammon. co.," or hartshorn, on a bottle. I reached it down myself, and pouring a large quantity into a tumbler with

a little water, both of which articles I found on a soda-water stand in the shop, drank it off, though it burnt my mouth and lips very much. Instantly I felt relief from the pain at the chest and head. The chemist stood aghast, and on my telling him what was the matter, recommended a warm bath. If I had then followed his advice, these words would never have been placed on record. After a second draught at the hartshorn bottle, I proceeded on my way, feeling very stupid and confused. On arriving at my friend's residence close by, he kindly procured me a bottle of brandy, of which I drank four large wine-glasses one after the other, but did not feel the least tipsy after the operation. Feeling nearly well, I started on my way home, and then, for the first time, perceived a most acute pain under the nail of the left thumb; this pain also ran up the arm. I set to work to suck the wound, and then found out how the poison had got into the system. About an hour before I examined the dead rat, I had been cleaning the nail with a penknife, and had slightly separated the nail from the skin beneath. Into this little crack the poison had got when I was scraping the rat's skin to examine the wound. How virulent, therefore, must the poison of the cobra be! It already had been circulated in the body of the rat, from which I had imbibed it second-hand.—*Buckland's "Curiosities of Natural History."*

**WOMEN AS WORKERS.**—We might remark, what is a fact very patent to many people, that the chief secretaries and helpers of men largely engaged in public business, are in very many cases their daughters—often a great deal than their sons—and that from Milton and Sir Thomas More down to Fowell Buxton, those filial auxiliaries have attended the steps of great men in a singularly large proportion. To descend to a very much lower platform, it is his daughter who keeps the tradesman's books, and makes out his bills, almost universally; and every one who condescends to make personal visits to the baker's, the butcher's, and the fishmonger's, must have seen the little railed-in desk in the corner, where the grown-up daughter, if there is such a person, finds her invariable place. The amanuensis of the higher class, worked remorselessly by the great philanthropist, who finds his most devoted servant in his female child, and the accountant of the lower, whose bills are not always extremely legible, but who is kept at her post with an unvarying steadiness, ought to find some account made of them in books about women; and the almost entire omission of so large a class, proves better, perhaps, than anything we can say would do, how entirely it is a view out of a corner which is given to the public as the general aspect of womankind.—*Blackwood's Magazine.*

**JEWS AT THE DIGGINGS.**—The clothing trade is almost entirely in the hands of the Jews, who are very numerous in California, and devote their time and energies exclusively to supplying their Christian brethren with the necessary articles of wearing apparel. In travelling through the mines, from one end to the other, I never saw a Jew lift a pick or a shovel to do a single stroke of work, or, in fact, occupy himself in any other way than in selling slops. While men of all classes and of every nation showed such versatility in betaking themselves to whatever business or occupation appeared at the time to be most advisable, without reference to their antecedents, and in a country where no man, to whatever class of society he belonged, was in the least degree ashamed to roll up his sleeves and dig in the mines for gold, or to engage in any other kind of manual labour, it was a very remarkable fact that the Jews were the only people among whom this was not observable.—*Borthwick's "Three Years in California."*

**ICELAND FROM THE SEA.**—The north-west division of Iceland consists of one huge peninsula, spread out upon the sea like a human hand, the fingers just reaching over the Arctic circle; while up between them run the gloomy fiords, sometimes to the length of twenty, thirty, and even forty miles. Anything more grand and mysterious than the appearance of their solemn portals, as we passed across from bluff to bluff, it is impossible to conceive.—*Letters from High Latitudes.*